



Billing Code 4310–55

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS–R1–ES–2013–N137; FXES11130100000D2–134–FF01E00000]

Experimental Removal of Barred Owls To Benefit Threatened Northern Spotted Owls; Final Environmental Impact Statement

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability.

SUMMARY: We, the U.S. Fish and Wildlife Service, announce the availability of the final environmental impact statement (Final EIS) for experimental removal of barred owls to benefit threatened northern spotted owls. The barred owl, a species recently established in western North America, is displacing the northern spotted owl and threatening its viability. The Final EIS analyzes a no-action alternative and eight action alternatives to experimentally determine if removing barred owls will benefit northern spotted owl populations and to test the feasibility and efficiency of barred owl removal as a management tool. The action alternatives vary by the number and location of study

areas, the type of experimental design, duration of study, and method of barred owl removal.

ADDRESSES: The Final EIS is available at:

- U.S. Fish and Wildlife Service, Oregon Fish and Wildlife Office, 2600 SE 98th Ave., Suite 100, Portland, OR 97266; telephone 503–231–6179.
- *Internet:* <http://www.fws.gov/oregonfwo>.

FOR FURTHER INFORMATION CONTACT: Paul Henson, State Supervisor, Oregon Fish and Wildlife Office, at 503–231–6179. If you use a telecommunications device for the deaf, please call the Federal Information Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

We, the U.S. Fish and Wildlife Service (Service), announce the availability of the Final EIS for experimental removal of barred owls to benefit threatened northern spotted owls. We are publishing this notice in compliance with the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*; NEPA) and its implementing regulations at 40 CFR 1506.6. The Final EIS evaluates the impacts of eight action alternatives and a no-action alternative related to: (1) Federal involvement in barred owl removal experiments, and (2) the possible issuance of one or more scientific collecting permits under the Migratory Bird Treaty Act (16 U.S.C. 703–712; MBTA) for lethal and nonlethal take of barred owls.

The northern spotted owl (*Strix occidentalis caurina*) is listed as threatened under the Endangered Species Act (16 U.S.C. 1531 *et seq.*; Act). Competition from barred owls (*Strix varia*) is identified as one of the main threats to the northern spotted owl in the 2011 *Revised Northern Spotted Owl Recovery Plan* (Recovery Plan) (USFWS 2011, p. III–62). To address this threat, the Recovery Plan recommends designing and implementing large-scale controlled experiments to assess the effects of barred owl removal on spotted owl site occupancy, reproduction, and survival (USFWS 2011, p. III–65). The study would be conducted on from one to several study areas in western Washington, western Oregon, and northwestern California. The action alternatives vary by the number and location of study areas, the type of experimental design, duration of the study, and the method of barred owl removal.

Background

The Service listed the northern spotted owl as a threatened species under the Act in 1990, based primarily on habitat loss and degradation (55 FR 26114). As a result, conservation efforts for the northern spotted owl have been largely focused on habitat protection. While our listing rule noted that the long-term impact of barred owls on the spotted owl was of considerable concern, the scope and severity of this threat was largely unknown at that time (55 FR 26114, p. 26190). The Recovery Plan summarized information available since our listing rule and found that competition from barred owls now poses a significant and immediate threat to the northern spotted owl throughout its range (USFWS 2011, pp. B–10 through B–12).

Historically, the barred owl and northern spotted owl did not co-occur. In the past century, barred owls have expanded their range westward, reaching the range of the northern spotted owl in British Columbia by about 1959. Barred owl populations continue to expand southward within the range of the northern spotted owl, the population of barred owls behind the expansion-front continues to increase, and barred owls now outnumber spotted owls in many portions of the northern spotted owl's range (Pearson and Livezey 2003, p. 272).

There is strong evidence to indicate that barred owls are negatively affecting northern spotted owl populations. Barred owls displace spotted owls from high-quality habitat (Kelley *et al.* 2003, p. 51; Pearson and Livezey 2003, p. 274; Courtney *et al.*, pp. 7-27 through 7-31; Gremel 2005, pp. 9, 11, 17; Hamer *et al.* 2007, p. 764; Dugger *et al.* 2011, pp. 2464–1466), reducing their survival and reproduction (Olson *et al.* 2004, p. 1048; Anthony *et al.* 2006, p. 32; Forsman *et al.* 2011, pp. 41–43, 69–70). In addition, barred owls may physically attack spotted owls (Gutierrez *et al.* 2007, p. 187). These effects may help explain declines in northern spotted owl territory occupancy associated with barred owls in Oregon, and reduced northern spotted owl survivorship and sharp population declines in Washington (e.g., in northern Washington, spotted owl populations declined by as much as 55 percent between 1996 and 2006) (Anthony *et al.* 2006, pp. 21, 30, 32; Forsman *et al.* 2011, pp. 43–47, 65–66)). Without management intervention, it is reasonable to expect that competition from barred owls may cause extirpation of the northern spotted owl from all or a substantial portion of its historical range, reducing its potential for survival and recovery.

Public Involvement

On December 10, 2009, the Service published a notice of intent to prepare an environmental impact statement related to experimental removal of barred owls for the conservation benefit of threatened northern spotted owls (notice of intent) in the Federal Register (74 FR 65546), to solicit participation of: Federal, State, and local agencies; Tribes; and the public to determine the scope of the EIS and provide input on issues associated with the proposed experiment. In addition to the publication of the notice of intent, the scoping process included informal stakeholder and agency consultations, and electronic or mailed notification to over 1,000 interested parties. Public scoping lasted until January 11, 2010. A scoping report is appended to the Final EIS.

In accordance with the NEPA, the Draft EIS was circulated for public review and comment. The public review period was initiated with the publication of the notice of availability (NOA) in the Federal Register on March 8, 2012 (77 FR 14036). We conducted one public meeting in Seattle on May 3, 2012, and five informational webinars for the public. Comments were due June 6, 2012. A summary of the comments and written responses are appended to the Final EIS.

Alternatives

The alternatives vary by the number and location of study areas, the method of barred owl removal (lethal, or a combination of lethal and nonlethal), and the type of experimental design (demography vs. occupancy). All action alternatives are based on a simple treatment and control study approach. Under this approach, study areas are

divided into two comparable segments. Barred owls are removed from the treatment area but not from the control area. Spotted owl populations are measured using the same methodology on both areas, and the population measures (occupancy, survival, reproduction, and population trend) are compared between the control and treatment areas.

The removal of barred owls under the experiment would occur over a period of 3 to 10 years, depending on the alternative. The action alternatives include from 1 to 11 study areas, including from 0.31 to 6.55 percent of the northern spotted owl's habitat. A brief description of each alternative follows.

Under the No-action Alternative, the Service would not conduct experimental removal of barred owls, thus not implementing one of the recovery actions set forth in the Recovery Plan (USFWS 2001, p. III-65). Data that would inform future barred owl management strategies would not be gathered.

Alternative 1 consists of a demography study in a single study area with existing pre-treatment spotted owl demography data. The study area would be located within an existing spotted owl demography study area where long-term monitoring of northern spotted owl populations has occurred (Lint *et al.* 1999, p. 17; Lint 2005, p. 7). Only lethal removal methods would be used in this alternative.

Alternative 2 consists of a demography study in three study areas, which would be located within existing spotted owl demography study areas and distributed across the range of the northern spotted owl. A combination of lethal and nonlethal removal methods would be used.

Alternative 3 consists of a demography study in two study areas. Barred owl removal would occur outside of existing spotted owl demography study areas, but within areas that have adequate data to conduct pre-removal demography analyses. A combination of lethal and nonlethal removal methods would be used.

Alternative 4 includes two subalternatives, 4a and 4b. Each subalternative consists of a demography study in two study areas outside existing spotted owl demography study areas. Each subalternative uses a combination of lethal and nonlethal removal methods. Subalternatives 4a and 4b differ in that 4a delays barred owl removal to collect pre-treatment data for comparison with treatment data, whereas 4b starts removal immediately and foregoes pre-treatment data collection.

Alternative 5 consists of an occupancy study approach in three study areas. Barred owl removal would occur on areas outside of existing spotted owl demography study areas. Only lethal removal methods would be applied in this alternative.

Alternative 6 includes two subalternatives, 6a and 6b. Each subalternative consists of an occupancy study in three study areas. Barred owl removal would occur on areas outside of existing spotted owl demography study areas. Each subalternative uses a combination of lethal and nonlethal removal methods. Subalternatives 6a and 6b differ in that 6a delays removal to collect pre-treatment data for comparison with treatment data, whereas 6b starts removal immediately and foregoes pre-treatment data collection.

Alternative 7 consists of a combination of demography and occupancy analyses across 11 study areas, some of which have current data. Three existing spotted owl

demographic study areas would be included within these study areas. A combination of lethal and nonlethal removal methods would be used.

Following public review of the Draft EIS, the Service developed a Preferred Alternative based on a combination of the features of Alternatives 2 and 3. The Preferred Alternative consists of a demography study in four study areas as in both draft alternatives. Barred owl removal would occur on the Cle Elum Study Area in Washington and the Hoopa (Willow Creek) Study Area in California from Alternative 2, the Union/Myrtle (Klamath) Study Area in southern Oregon from Alternative 3, and one half of the combined Oregon Coast Ranges and Veneta Study Areas in northern Oregon. This last study area is a combination of study areas from Alternative 2 and 3. A combination of lethal and non-lethal removal methods would be used from Alternative 3.

References Cited

A complete list of references cited in this notice is available upon request from our Oregon Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

National Environmental Policy Act Compliance

We will make a decision no sooner than 30 days after the publication of the Final EIS. We anticipate issuing a Record of Decision in the summer of 2013.

We provide this notice under the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*), and its implementing regulations in the Code of Federal Regulations (CFR) at 40 CFR 1506.6. We also publish this notice under authority of the Migratory Bird Treaty Act (16 U.S.C. 703–712) and its specific implementing regulations at 50 CFR 10.13 and 50 CFR 21.23.

Dated: July 17, 2013.

**Robyn Thorson,
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